

**REMARKS**

**Summary of Office Action**

As an initial matter, Applicants note with appreciation that the Examiner has withdrawn the rejection of claims 26, 27, 32, 37 and 45 under 35 U.S.C. § 102(b) as allegedly being anticipated by Penska et al., EP 0 938 890 or U.S. Patent No. 5,851,544 (hereafter "PENSKA").

Claims 18-20, 25, 27-33, 35 and 36 remain rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Beutler et al., U.S. Patent No. 4,808,388 (hereafter "BEUTLER").

Claims 21-23 and 34 remain rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over BEUTLER.

Claims 18-24, 28-31, 34, 36-39 and 44 remain rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Bellon et al., FR 2,789,397 (hereafter "BELLON").

Claims 25-27, 32, 33, 40, 41 and 45 remain rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over BELLON and further in view of Snyder, U.S. Patent No. 4,708,813 (hereafter "SNYDER").

Claim 35 remains rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over BELLON in view of Saint-Leger et al., U.S. Patent No. 5,939,077 (hereafter "SAINT-LEGER").

Claims 18-20, 24, 25, 28, 30, 31, 33-36 and 44 remain rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by PENSKA.

Claims 21-23, 29 and 38-41 remain rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over PENSKA.

**Response to Office Action**

Reconsideration and withdrawal of the rejections of record are again respectfully requested, in view of the following remarks.

***Response to Rejection of Claims under 35 U.S.C. § 102(b) over BEUTLER***

Claims 18-20, 25, 27-33, 35 and 36 remain rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by BEUTLER. The rejection is a repetition of the rejection set forth in the previous Office Action.

Applicants respectfully traverse this rejection for at least all of the reasons which are set forth in the responses to the previous Office Actions. The corresponding remarks are incorporated herein.

Applicants further note that the Examiner has again failed to explain why NetMoneyIN, Inc. v. VeriSign, Inc., 545 F.3d 1359 (Fed. Cir. 2008) is not pertinent to the instant situation.

Regarding the Examiner's comments in the passage from page 4, last paragraph to page 5, second paragraph of the instant Office Action Applicants point out that the "Polysorbate 20" employed in Examples 5/1a and 5/1b of BEUTLER is expressly identified in BEUTLER as "Sorbitan monolaurate" (see Example 5/1a), i.e., not as polyoxyethylene(20) sorbitan monolaurate as alleged by the Examiner. As can be taken from, e.g., <http://www.fao.org/ag/agn/jccfa-additives/specs/Monograph1/Additive-431.pdf>, sorbitan monolaurate is a commercial product which finds use as emulsifier. Accordingly, at the very least it is unclear whether the compositions of Examples 5/1a and 5/1b of BEUTLER contain sorbitan monolaurate or the product with the commercial designation Polysorbate 20. Thus, there is no support whatsoever for the allegation that the compositions of Examples 5/1a and 5/1b of BEUTLER necessarily contain Polysorbate 20.

In this regard, it further is noted that the composition of Example 6/1 of BEUTLER contains the same components (A) to (C) as the compositions of Examples 5/1a and 5/1b of BEUTLER with the only exception that the "Polysorbate 20 (Sorbitan monolaurate)" is replaced by the same amount (0.25 % by weight) of sorbitan stearate (i.e., a non-polyoxyethylated emulsifier). This fact makes it almost certain that the non-ionic emulsifier employed in Examples 5/1a and 5/1b of BEUTLER is sorbitan monolaurate, i.e., a mere homologue of sorbitan (mono)stearate.

It further is pointed out that according to, for example, instant claim 18 the claimed preparation comprises from 1 % to 90 % by volume, based on the total volume of the preparation, of at least one gas selected from air, oxygen, nitrogen, helium, argon, nitrous oxide and carbon dioxide. It is not seen that the preparations of Examples 5/1a and 5/1b of BEUTLER necessarily comprise from 1 % to 90 % by volume of at least one gas, and neither does the Examiner provide any comment in this respect.

In this regard, Applicants further note that the compositions of Examples 5/1a and 5/1b of BEUTLER are comparative compositions whose consistency is "too liquid" and which "cannot be delivered by compressed gases". See, e.g., the remarks under the heading "EXPLANATION OF EXAMPLES 5/1a and 5/1b" in columns 13 and 14 of BEUTLER. This makes it even more doubtful that the compositions of Examples 5/1a and 5/1b of BEUTLER comprise from 1 % to 90 % by volume of gas (N<sub>2</sub>O or CO<sub>2</sub>).

Applicants submit that for at least all of the foregoing reasons and the additional reasons set forth in the responses to the previous Office Actions the rejection of claims 18-20, 25, 27-33, 35 and 36 under 35 U.S.C. § 102(b) over BEUTLER is without merit, wherefore withdrawal thereof is again respectfully requested.

***Response to Rejection of Claims under 35 U.S.C. § 103(a) over BEUTLER***

Dependent claims 21-23 and 34 remain rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over BEUTLER. The rejection is a repetition of the rejection set forth in the previous Office Action.

Applicants respectfully traverse also this rejection for at least all of the reasons which are set forth in the responses to the previous Office Actions. The corresponding remarks are incorporated herein.

***Response to Rejection of Claims under 35 U.S.C. § 103(a) over BELLON***

Claims 18-24, 28-31, 34, 36-39 and 44 remain rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over BELLON. The rejection is a repetition of the rejection set forth in the previous Office Action.

Applicants respectfully traverse also this rejection for at least all of the reasons which are set forth in the responses to the previous Office Actions. The corresponding remarks are incorporated herein.

It is noted that the Examiner continues to (merely) assert that the "PEG-100 stearate glyceryl stearate" employed in Example 1 of BELLON is "PEG-100 stearate/glyceryl stearate", without providing any evidence whatsoever which would support this contention. A mere contention is clearly not enough to support the instant rejection.

The Examiner further has again not explained why she has changed her mind with respect to the meaning of "PEG-100 stearate glyceryl stearate" (see Examiner's Answer mailed November 16, 2007: "[t]he structure of PEG-100 stearate glyceryl stearate is  $C_{17}H_{35}-COO(CH_2CH_2O)_{100}(CH-CH(OH)-CH_2-OOCC_{17}H_{33})$ ").

Applicants additionally point out again that BELLON does not even discuss the combination of compounds which allegedly correspond to the present emulsifiers A, B and C, let alone as an emulsifier system, but mentions these compounds separately and for unrelated purposes or not at all.

Specifically, the stearic acid of Example 1 of BELLON is discussed as a possible constituent of the lipophilic phase and the “soap” of the composition of BELLON. Fatty bodies which include “esters of oxyethylenated (or not) fatty acids” of BELLON (which may or may not encompass the “PEG-100 stearate glyceryl stearate” of Example 1) are mentioned, among many others, as (optional) traditional cosmetic adjuvants of the composition, i.e., are not even identified as emulsifiers, and also are not indicated to be associated with any advantage which would make their incorporation in a composition of BELLON particularly desirable. The intended function of octyldodecanol is not identified in BELLON at all. The fact that BELLON does not even mention the function of, let alone any advantage associated with, the presence of octyldodecanol clearly fails to prompt one of ordinary skill in the art to optimize the concentration of octyldodecanol in the composition of Example 1 of BELLON. Further, even if one were to assume, *arguendo*, that there is an apparent reason for one of ordinary skill in the art to optimize the concentration of octyldodecanol, it is not seen that there is an apparent reason for optimizing the total concentration of octyldodecanol, stearic acid and PEG-100 stearate glyceryl stearate. BELLON does not provide any indication whatsoever that these three components act together to give rise to any (advantageous) effect and thus, it is not seen that BELLON identifies their relative ratios as result-effective variables (as alleged by the Examiner).

Regarding the further allegations set forth at page 11 of the instant Office Action, the Examiner now appears to allege that the combination of stearic acid, PEG-7 glyceryl cocoate and decyl glucoside used in Example 3 of BELLON is “substantially similar” to the emulsifier system

recited in the instant claims. However, the Examiner has failed to provide any evidence that decyl glucoside, i.e., an ether of glucose and decanol, is substantially the same as a fatty alcohol (such as, e.g., the octyldodecanol employed in Example 1 of BELLON). For example, it is apparent to one of ordinary skill in the art that the properties of a compound with one hydroxyl group attached to a hydrocarbon chain (fatty alcohol) are significantly different from those of a compound which comprises altogether four hydroxyl groups (all of which attached to a heterocyaloaliphatic moiety), a saturated heterocyclic (tetrahydropyran) ring and an ether group (= decyl glucoside).

What decyl glucoside and octyldodecanol do have in common is that neither of these compounds is mentioned in the body of the specification of BELLON, let alone as component of a (required) emulsifier system which also comprises components A and B recited in the instant claims.

Applicants submit that at least for all of the foregoing reasons and the additional reasons set forth in the responses to the previous Office Actions, BELLON fails to render obvious the subject matter of any of the rejected claims. Accordingly, withdrawal of the rejection under 35 U.S.C. § 103(a) over BELLON is warranted and again respectfully requested.

***Response to Rejection of Claims under 35 U.S.C. § 103(a) over BELLON in View of SNYDER or SAINT-LEGER***

Claims 25-27, 32, 33, 40, 41 and 45 remain rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over BELLON and further in view of SNYDER and claim 35 remains rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over BELLON in view of SAINT-LEGER. The rejections are repetitions of the corresponding rejections set forth in the previous Office Action.

Applicants respectfully traverse also these rejections for at least all of the reasons which are set forth in the responses to the previous Office Actions. The corresponding remarks are

incorporated herein.

***Response to Rejection of Claims under 35 U.S.C. § 102(b) over PENSKA***

Claims 18-20, 24, 25, 28, 30, 31, 33-36 and 44 remain rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by PENSKA. The rejection is a repetition of the rejection set forth in the previous Office Action and again relies particularly on Examples 6 and 7 of PENSKA which allegedly disclose all of the elements that are recited in the rejected claims.

Applicants respectfully traverse also this rejection for at least all of the reasons which are set forth in the responses to the previous Office Actions. The corresponding remarks are incorporated herein.

It is pointed out again that there is no indication whatsoever in PENSKA that the compositions disclosed therein are self-foaming or foam-like. On the contrary, it appears that the carbon dioxide which is infused in the liquid fluorocarbon which is a component of the compositions of PENSKA is merely physically dissolved in the fluorocarbon. This is supported, e.g., by the statement in paragraph [0018] (EP) of PENSKA according to which "infusion of the carbon dioxide is done preferably until the fluorocarbon is totally saturated with carbon dioxide". If a foam were to be present, the carbon dioxide would apparently have to be used in amounts which exceed the saturation concentration thereof in the liquid hydrocarbon.

It is noted that in response to this argument the Examiner alleges at page 17 of the instant Office Action that PENSKA "discloses the same amount of carbon dioxide as in instant claim 18, and thus meets the instant claim limitation".

Applicants submit that this argument is clearly without merit. If the Examiner were correct, any composition which comprises any amount of carbon dioxide within the range of from 1 % to 90

% by volume would be self-foaming or foam-like, regardless of the types and concentrations of the remaining components of the composition and in particular, regardless of whether or not the composition comprises (high concentrations of) components in which carbon dioxide is highly soluble (such as the liquid fluorocarbons of PENSKA).

Further, Applicants do not know how the Examiner has calculated the alleged volume percentage of perfluorodecane in the composition of Example 6 of PENSKA based on the indicated weight percentage thereof, and neither does the Examiner provide any explanation in this regard.

It also is pointed out that according to PENSKA, “[t]he fluorocarbon in the inventive compositions carries typically 50% to 250% ... its volume in carbon dioxide at 37 C”. This statement only makes sense if the carbon dioxide is physically dissolved in the fluorocarbon because if the fluorocarbon were foamed (if possible at all) one could not reasonably consider the fluorocarbon to “carry” the carbon dioxide.

Even further, PENSKA recommends “to infuse the fluorocarbon prior to its incorporation in a final composition due to the easier carbonation when bubbling through a low viscosity fluid rather than through a more viscous final composition”. If the final composition were to be self-foaming or foam-like it would appear to be much more practical to bubble the carbon dioxide through the final composition (and thereby foam same) rather than to add a foamed fluorocarbon (if one were to assume, *arguendo*, that a fluorocarbon as such can be foamed) to the remaining components of the composition and to mix the (theoretical) foamed fluorocarbon with these components.

In this regard, it also must be taken into account that the compositions of PENSKA are provided to improve blood flow and circulation to skin (see, e.g., abstract of PENSKA) and that “[i]mmersion of the skin in carbon dioxide enriched water has previously been shown to increase blood flow and therefore oxygen delivery to the skin” (col. 1, lines 22-25 of PENSKA (US)).



Accordingly, it is clear that the compositions of PENSKA are intended to bring skin into contact with carbon dioxide in (highly) concentrated form, i.e., not only with gaseous carbon dioxide in the form of a foam comprising bubbles filled carbon dioxide. It further is submitted that “carbon dioxide enriched water” is clearly not present as a foam, either.

Applicants submit that for at least all of the foregoing reasons and the additional reasons set forth in the responses to the previous Office Actions, the rejection of claims 18-20, 24, 25, 28, 30, 31, 33-36 and 44 under 35 U.S.C. § 102(b) over PENSKA is without merit, wherefore withdrawal thereof is again respectfully requested.

***Response to Rejection of Claims under 35 U.S.C. § 103(a) over PENSKA***

Claims 21-23, 29 and 38-41 remain rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over PENSKA. The rejection is a mere repetition of the corresponding rejections set forth in the previous Office Action.

Applicants respectfully traverse also this rejection for at least all of the reasons which are set forth in the response to the previous Office Action. The corresponding remarks are incorporated herein.

**CONCLUSION**

In view of the foregoing, it is believed that all of the claims in this application are in condition for allowance, wherefore an early issuance of the Notices of Allowance and Allowability is respectfully solicited. If any issues yet remain which can be resolved by a telephone conference, the Examiner is respectfully invited to contact the undersigned at the telephone number below.

Respectfully submitted,  
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/Heribert F. Muensterer/

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